Design and technology and Art and design (revised scheme)

Progression of skills and knowledge - mixed-age

Subject leader overview EYFS - Year 6

Introduction

An overview of the **skills** and **knowledge** covered in each year group phase and cycle across the units of lessons for those schools following our *Art and DT: Long-term plan — mixed-age* for the **Revised Art and design scheme.** Please see the *Art and DT: Long-term plan — mixed-age* document for the rationale behind the units selected to form part of the plan.

Please note that schools must subscribe to both subjects to be able to access all the units referenced in this document.

This document was last updated on 21.08.24. Please check here for the most up to date version.

Types of knowledge in Art and design

Substantive knowledge

Practical

In order to make art with increasing proficiency, pupils need to develop practical knowledge in the following areas:

- Methods and techniques
- Media and materials
- Formal elements: Line, tone, shape, colour, form, pattern, texture.

In the Kapow Primary curriculum, this knowledge largely links to our **Making skills** strand.

Making skills (including formal elements)

Theoretical

Children gain knowledge of the history of art through our **Knowledge of artists** strand.

They consider the meanings and interpretations behind works of art that they study and explore artists' materials and processes.

Knowledge of artists

Disciplinary knowledge

Disciplinary

Disciplinary knowledge refers to the knowledge children acquire to help them understand the subject as a discipline. Pupils learn how art is studied, discussed and judged, considering our big questions:

What is art?
Why do people make art?
How do people talk about art?

In our scheme, the strand **Evaluating and analysing** covers this knowledge.

Evaluating and analysing

Generating ideas

Using sketchbooks

The three domains of knowledge, and the interplay between them, enable pupils to **generate ideas** and **use sketchbooks** to develop their own artistic identity.

In response to the Ofsted research review series: Art and design publication (Ofsted, 2023) we have shown how the different types of knowledge build in our progression of skills for Art and design. This page shows how those forms of knowledge are interconnected.

Drawing

	EYFS (Reception): Marvellous marks	Year 1/2 Cycle A: Make your mark	Year 3/4 Cycle A: Growing artists
Methods, techniques, media and materials	**Pupils know**		
	How to: • Explore mark making using a range of drawing materials. • Investigate marks and patterns when drawing. • Identify similarities and difference between drawing tools. • Investigate how to make large and small movements with control when drawing. • Practise looking carefully when drawing. • Combine materials when drawing.	• That a continuous line drawing is a drawing with one unbroken line. • Properties of drawing materials eg; which ones smudge, which ones can be erased, which ones blend. How to: • Hold and use drawing tools in different ways to create different lines and marks. • Create marks by responding to different stimulus such as music. • Overlap shapes to create new ones. • Use mark making to replicate texture. • Look carefully to make an observational drawing. • Complete a continuous line drawing.	How to: • Use shapes identified within in objects as a method to draw. • Create tone by shading. • Achieve even tones when shading. • Make texture rubbings. • Create art from textured paper. • Hold and use a pencil to shade. • Tear and shape paper. • Use paper shapes to create a drawing. • Use drawing tools to take a rubbing. • Make careful observations to accurately draw an object. • Create abstract compositions to draw more expressively.
	So that they can:		***See skills progression here**
	Use a range of drawing materials, art application techniques, mixed-media scraps and modelling materials to create child-led art with no set outcome. Begin to develop observational skills (for example, by using mirrors to include the main features of faces)	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials to use to create an effect. Develop observational skills to look closely and aim to reflect some of the formal elements of art (colour, pattern, texture, line, shape, form and space) in their work.	Demonstrate increased skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects. Use hands and tools along with increasingly complex techniques to shape and join materials, such as carving and modelling wire. Develop direct observation, for example by using tonal shading and starting to apply an understanding of shape to communicate form and proportion.

Drawing

	Year 3/4 Cycle A: Power prints	Year 5/6 Cycle A: I need space	Year 5/6 Cycle A: Make my voice heard
Methods, techniques, media and materials	**Pupils know**		
	How to: • Use pencils of different grades to shade and add tone. • Hold a pencil with varying pressure to create different marks. • Use observation and sketch objects quickly. • Draw objects in proportion to each other. • Use charcoal and a rubber to draw tone. • Use scissors and paper as a method to 'draw'. • Make choices about arranging cut elements to create a composition. • Create a wax resist background. • Use different tools to scratch into a painted surface to add contrast and pattern. • Choose a section of a drawing to recreate as a print. • Create a monoprint.	• What print effects different materials make. How to: • Analyse an image that considers impact, audience and purpose. • Draw the same image in different ways with different materials and techniques. • Make a collagraph plate. • Make a collagraph print. • Develop drawn ideas for a print. • Combine techniques to create a final composition. • Decide what materials and tools to use based on experience and knowledge.	• Gestural and expressive ways to make marks. • Effects different materials make. • The effects created when drawing into different surfaces How to: • Use symbolism as a way to create imagery. • Combine imagery into unique compositions. • Achieve the tonal technique called chiaroscuro. • Make handmade tools to draw with. • Use charcoal to create chiaroscuro effects.
	So that they can:		**See skills progression here**
	Demonstrate increased skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects. Use growing knowledge of different materials, combining media for effect. Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style.	Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists. Combine a wider range of media, eg photography and digital art effects. Work in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.	Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently. Combine materials and techniques appropriately to fit with ideas. Work in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.

Painting and mixed media

	EYFS (Reception): Paint my world	Year 1/2 Cycle B: Colour splash	Year 1/2 Cycle B: Life in colour
Pupils know how to:			
Methods, techniques, media and materials	• Explore paint, using hands as a tool. • Describe colours and textures as they paint. • Explore what happens when paint colours mix. • Make natural painting tools. • Investigate natural materials eg paint, water for painting. • Explore paint textures, for example mixing in other materials or adding water. • Respond to a range of stimuli when painting. • Use paint to express ideas and feelings. • Explore colours, patterns and compositions when combining materials in collage.	• Combine primary coloured materials to make secondary colours. • Mix secondary colours in paint. • Choose suitable sized paint brushes. • Clean a paintbrush to change colours. • Print with objects, applying a suitable layer of paint to the printing surface. • Overlap paint to mix new colours. • Use blowing to create a paint effect. • Make a paint colour darker or lighter (creating shades) in different ways eg. adding water, adding a lighter colour.	• Mix a variety of shades of a secondary colour. • Make choices about amounts of paint to use when mixing a particular colour. • Match colours seen around them. • Create texture using different painting tools. • Make textured paper to use in a collage. • Choose and shape collage materials eg cutting, tearing. • Compose a collage, arranging and overlapping pieces for contrast and effect. • Add painted detail to a collage to enhance/improve it.
So that they can:			
	Use a range of drawing materials, art application techniques, mixed-media scraps and modelling materials to create child-led art with no set outcome.	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials to use to create an effect.	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials and techniques to use to create an effect. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials. Develop observational skills to look closely and aim to reflect some of the formal elements of art (colour, pattern, texture, line, shape, form and space) in their work.

See skills progression here

Painting and mixed media

	Year 3/4 Cycle B: Light and dark	Year 5/6 Cycle A: Portraits
Methods, techniques, media and materials	**Pupils know how to:**	
	• Mix a tint and a shade by adding black or white. • Use tints and shades of a colour to create a 3D effect when painting. • Apply paint using different techniques eg. stippling, dabbing, washing. • Choose suitable painting tools. • Arrange objects to create a still life composition. • Plan a painting by drawing first. • Organise painting equipment independently, making choices about tools and materials.	• Develop a drawing into a painting. • Create a drawing using text as lines and tone. • Experiment with materials and create different backgrounds to draw onto. • Use a photograph as a starting point for a mixed-media artwork. • Take an interesting portrait photograph, exploring different angles. • Adapt an image to create a new one. • Combine materials to create an effect. • Choose colours to represent an idea or atmosphere. • Develop a final composition from sketchbook ideas.
	So that they can:	**See skills progression here**
	Demonstrate increased skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects. Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style.	Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists. Combine a wider range of media, eg photography and digital art effects. Create in a more sustained way, revisiting artwork over time and applying their understanding of tone, texture, line, colour and form.

Sculpture and 3D

	EYFS (Reception): Creation station	Year 1/2 Cycle A: Paper play	Year 1/2 Cycle A: Clay houses
Methods, techniques, media and materials	**Pupils know how to:**		
	• Explore the properties of clay. • Use modelling tools to cut and shape soft materials eg. playdough, clay. • Select and arrange natural materials to make 3D artworks. • Talk about colour, shape and texture and explain their choices. • Plan ideas for what they would like to make. • Problem-solve and try out solutions when using modelling materials. • Develop 3D models by adding colour.	• Roll and fold paper. • Cut shapes from paper and card. • Cut and glue paper to make 3D structures. • Decide the best way to glue something. • Create a variety of shapes in paper, eg spiral, zig-zag. • Make larger structures using newspaper rolls.	• Smooth and flatten clay. • Roll clay into a cylinder or ball. • Make different surface marks in clay. • Make a clay pinch pot. • Mix clay slip using clay and water. • Join two clay pieces using slip. • Make a relief clay sculpture. • Use hands in different ways as a tool to manipulate clay. • Use clay tools to score clay.
	So that they can:		**See skills progression here**
	Use a range of drawing materials, art application techniques, mixed-media scraps and modelling materials to create child-led art with no set outcome. Cut, thread, join and manipulate materials safely, focussing on process over outcome. Begin to develop observational skills (for example, by using mirrors to include the main features of faces.)	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Explore and analyse a wider variety of ways to join and fix materials in place.	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials and techniques to use to create an effect. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials. Develop observational skills to look closely and aim to reflect some of the formal elements of art (colour, pattern, texture, line, shape, form and space) in their work.

Sculpture and 3D

	Year 3/4 Cycle A: Abstract shape and space	Year 5/6 Cycle B: Interactive installation	Year 5/6 Cycle B: Making memories
Methods, techniques, media and materials	**Pupils know**		
	How to: • Join 2D shapes to make a 3D form. • Join larger pieces of materials, exploring what gives 3D shapes stability. • Shape card in different ways eg. rolling, folding and choose the best way to recreate a drawn idea. • Identify and draw negative spaces. • Plan a sculpture by drawing. • Choose materials to scale up an idea. • Create different joins in card eg. slot, tabs, wrapping. • Add surface detail to a sculpture using colour or texture. • Display sculpture.	How to: • Make an explosion drawing in the style of Cai Guo-Qiang, exploring the effect of different materials. • Try out ideas on a small scale to assess their effect. • Use everyday objects to form a sculpture. • Transform and manipulate ordinary objects into sculpture by wrapping, colouring, covering and joining them. • Try out ideas for making a sculpture interactive. • Plan an installation proposal, making choices about light, sound and display.	How to: • Translate a 2D image into a 3D form. • Manipulate cardboard to create 3D forms (tearing, cutting, folding, bending, ripping). • Manipulate cardboard to create different textures. • Make a cardboard relief sculpture. • Make visual notes to generate ideas for a final piece. • Translate ideas into sculptural forms.
	So that they can:		**See skills progression here**
	Use growing knowledge of different materials, combining media for effect. Use hands and tools along with increasingly complex techniques to shape and join materials, such as carving and modelling wire. Develop direct observation, for example by using tonal shading and starting to apply an understanding of shape to communicate form and proportion.	Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists. Combine a wider range of media, eg photography and digital art effects. Work in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.	Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently. Combine materials and techniques appropriately to fit with ideas. Work in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.

Craft and design

	Year 1/2 Cycle B: Map it out	Year 3/4 Cycle B: Ancient Egyptian scrolls
Methods, techniques, media and materials	**Pupils know**	
	How to: • Draw a map to illustrate a journey. • Separate wool fibres ready to make felt. • Lay wool fibres in opposite directions to make felt. • Roll and squeeze the felt to make the fibres stick together. • Add details to felt by twisting small amounts of wool. • Choose which parts of their drawn map to represent in their 'stained glass'. • Overlap cellophane/tissue to create new colours. • Draw a design onto a printing polystyrene tile without pushing the pencil right through the surface. • Apply paint or ink using a printing roller. • Smooth a printing tile evenly to transfer an image. • Try out a variety of ideas for adapting prints into 2D or 3D artworks.	• That layering materials in opposite directions make the handmade paper stronger. How to: • Use a sketchbook to research a subject using different techniques and materials to present ideas. • Construct a new paper material using paper, water and glue • Use symbols to reflect both literal and figurative ideas. • Produce and select an effective final design. • Make a scroll. • Make a zine. • Use a zine to present information.
	So that they can:	**See skills progression here**
	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Make choices about which materials and techniques to use to create an effect. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials.	Use growing knowledge of different materials, combining media for effect. Use hands and tools along with increasingly complex techniques to shape and join materials, such as carving and modelling wire.

Craft and design

	Year 3/4 Cycle B: Fabric of nature	Year 5/6 Cycle B: Photo opportunity
	Pupils know	
Methods, techniques, media and materials.	• That a mood board is a visual collection which aims to convey a general feeling or idea. • That batik is a traditional fabric decoration technique that uses hot wax. How to: • Select imagery and use as inspiration for a design project. • To know how to make a mood board. • Recognise a theme and develop colour palettes using selected imagery and drawings. • Draw small sections of one image to docs on colours and texture. • Develop observational drawings into shapes and pattern for design. • Transfer a design using a tracing method. • Make a repeating pattern tile using cut and torn paper shapes. • Ue glue as an alternative batik technique to create patterns on fabric. • Use materials, like glue, in different ways depending on the desired effect. • Paint on fabric. • Wash fabric to remove glue to finish a decorative fabric piece.	• How different materials can be used to produce photorealistic artwork. • That macro photography is showing a subject as larger than it is in real life. How to: • Create a photomontage. • Create artwork for a design brief. • Use a camera or tablet for photography. • Identify the parts of a camera. • Take a macro photo, choosing an interesting composition. • Manipulate a photograph using photo editing tools. • Use drama and props to recreate imagery. • Take a portrait photograph. • Use a grid method to copy a photograph into a drawing.
	So that they can:	**See skills progression here**
	Use growing knowledge of different materials, combining media for effect. Use more complex techniques to shape and join materials, such as carving and modelling wire.	Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently. Combine materials and techniques appropriately to fit with ideas.

	EYFS: Reception	Year 1/2
Pupils know:		
Colour	The names of a wide range of colours. Colours can be mixed to make new colours.	That the primary colours are red, yellow and blue. Primary colours can be mixed to make secondary colours. Different amounts of paint and water can be used to mix hues of secondary colours *(statement also included under 'Tone')*. Colours can be mixed to 'match' real life objects or to create things from your imagination.
Form	Modelling materials can be shaped using hands or tools.	Paper can change from 2D to 3D by folding, rolling and scrunching it. That three dimensional art is called sculpture. That 'composition' means how things are arranged on the page. Pieces of clay can be joined using the 'scratch and slip' technique. A clay surface can be decorated by pressing into it or by joining pieces on.
Shape	The names of simple shapes in art.	A range of 2D shapes and confidently draw these. Paper can be shaped by cutting and folding it. Collage materials can be shaped to represent shapes in an image. Shapes can be organic (natural) and irregular. Patterns can be made using shapes.
Line	Lines can be curved or straight and described in simple terms such as: wiggly,' 'straight,' 'round'.	Drawing tools can be used in a variety of ways to create different lines. Lines can represent movement in drawings. Lines can be used to fill shapes, to make outlines and to add detail or pattern.

	EYFS: Reception	Year 1/2
Pupils know:		
Pattern	When they have made a pattern with objects/colours/drawn marks and be able to describe it.	That a pattern is a design in which shapes, colours or lines are repeated. Drawing techniques such as hatching, scribbling, stippling, and blending can make patterns. Patterns can be used to add detail to an artwork.
Texture	Simple terms to describe what something feels like (eg. bumpy).	That texture means 'what something feels like'. Different marks can be used to represent the textures of objects. Different drawing tools make different marks. Collage materials can be chosen to represent real-life textures. Collage materials can be overlapped and overlaid to add texture. Drawing techniques such as hatching, scribbling, stippling, and blending can create surface texture. Painting tools can create varied textures in paint.
Tone	There are different shades of the same colour and identify colours as 'light' or 'dark'.	That there are many different shades (or 'hues') of the same colour. Changing the amount of the primary colours mixed affects the shade of the secondary colour produced. Different amounts of paint and water can be used to mix hues of secondary colours *(statement also included under 'Colour')*.

	Year 3/4	Year 5/6
Pupils know:		
Colour	Using light and dark colours next to each other creates contrast. Paint colours can be mixed using natural substances, and that prehistoric peoples used these paints. Adding black to a colour creates a shade. Adding white to a colour creates a tint.	Artists use colour to create an atmosphere or to represent feelings in an artwork, for example by using warm or cool colours. A 'monochromatic' artwork uses tints and shades of just one colour. Colours can be symbolic and have meanings that vary according to your culture or background, eg red for danger or for celebration.
Form	Three dimensional forms are either organic (natural) or geometric (mathematical shapes, like a cube). Organic forms can be abstract. Using lighter and darker tints and shades of a colour can create a 3D effect. Simple 3D forms can be made by creating layers, by folding and rolling materials.	An art installation is often a room or environment in which the viewer 'experiences' the art all around them. The size and scale of three-dimensional artwork changes the effect of the piece. The surface textures created by different materials can help suggest form in two-dimensional art work.
Shape	Negative shapes show the space around and between objects. Artists can focus on shapes when making abstract art. How to use basic shapes to form more complex shapes and patterns.	Shapes can be used to place the key elements in a composition. How an understanding of shape and space can support creating effective composition.
Line	Using different tools or using the same tool in different ways can create different types of lines.	Lines can be used by artists to control what the viewer looks at within a composition, eg by using diagonal lines to draw your eye into the centre of a drawing. How line is used beyond drawing and can be applied to other art forms.

	Year 3/4	Year 5/6
Pupils know:		
Pattern	Pattern can be man-made (like a printed wallpaper) or natural (like a giraffe's skin). Patterns can be irregular, and change in ways you wouldn't expect. The starting point for a repeating pattern is called a motif, and a motif can be arranged in different ways to make varied patterns.	Artists create pattern to add expressive detail to art works (for example Chila Kumari Singh Burman using small everyday objects to add detail to sculptures.) Pattern can be created in many different ways, eg in the rhythm of brushstrokes in a painting (like the work of van Gogh) or in repeated shapes within a composition.
Texture	Texture in an artwork can be real (what the surface actually feels like) or a surface can be made to appear textured. How to use texture more purposely to achieve a specific effect or to replicate a natural surface.	How to create texture on different materials. Applying thick layers of paint to a surface is called impasto, and is used by artists such as Claude Monet to describe texture.
Tone	That 'tone' in art means 'light and dark'. Shading helps make drawn objects look realistic. Some basic rules for shading when drawing, eg shade in one direction, blending tones smoothly and with no gaps. Shading is used to create different tones in an artwork and can include hatching, cross-hatching, scribbling and stippling. That using lighter and darker tints and shades of a colour can create a 3D effect. Tone can be used to create contrast in an artwork.	Tone can help show the foreground and background in an artwork. That chiaroscuro means 'light and dark' and is a term used to describe high-contrast images.

	EYFS: Reception	Year 1/2
	Pupils know:	
Meanings	*This aspect of the curriculum is child-led; encourage discussion and individual responses to their own and other artworks.*	• Some artists are influenced by things happening around them. • Some artists create art to make people aware of good and bad things happening in the world around them.
Interpretations	*This aspect of the curriculum is child-led; encourage discussion and individual responses to their own and other artworks.*	• Sometimes artists concentrate on how they are making something rather than what they make. • Artists living in different places at different times can be inspired by similar ideas or stories. • Art can be figurative or abstract.
Materials and processes	• Artists use modelling materials like clay to recreate things from real life. • Artists choose colours to draw or paint with. • Artists draw many different things and use different tools to draw with. • Sometimes artists are inspired by the seasons. • Some art doesn't last long- it is temporary. • Sometimes artists cut and stick photos to make new images.	• Artists choose materials that suit what they want to make. • Illustrators use drawn lines to show how characters feel. • Artists try out different combinations of collage materials to create the effect they want. • Artists can use the same material (felt) to make 2D or 3D artworks. • Artists and designers can create work to match a set of requirements; a 'brief' or 'commission'.
	So that they can: **See skills progression here**	
	Enjoy looking at and talking about art. Recognise that artists create varying types of art and use lots of different types of materials. Recognise that artists can be inspired by many things.	Understand how artists choose materials based on their properties in order to achieve certain effects. Talk about art they have seen using some appropriate subject vocabulary. Create work from a brief, understanding that artists are sometimes commissioned to create art. Create and critique both figurative and abstract art, recognising some of the techniques used. Apply their own understanding of art materials learnt from artist work to begin purposefully choosing materials for a specific effect.

Knowledge of artists

	Year 3/4	Year 5/6
	Pupils know:	
Meanings	• Art from the past can give us clues about what it was like to live at that time.	• Artists are influenced by what is going on around them; for example culture, politics and technology. • Artists 'borrow' ideas and imagery from other times and cultures to create new artworks. • How an artwork is interpreted will depend on the life experiences of the person looking at it. • Artists can use symbols in their artwork to convey meaning. • Sometimes artists add extra meaning to what they create by working in places where they don't have permission to work.
Interpret-ations	• The meanings we take from art made in the past are influenced by our own ideas. • Designers can make beautiful things to try and improve people's everyday lives. • How and where art is displayed has an effect on how people interpret it.	• Artists use self-portraits to represent important things about themselves. • Artists create works that make us question our beliefs. • Artists find inspiration in other artist's work, adapting and interpreting ideas and techniques to create something new. • Art can be a form of protest. • Artists use art to tell stories about things that are important to them; looking at artworks from the past can reveal thoughts and opinions from that time. • Art sometimes creates difficult feelings when we look at it.

Knowledge of artists

	Year 3/4	Year 5/6
	Pupils know:	
Materials and processes	• Artists have different materials available to them depending on when they live in history. • Artists can make their own tools. • Artists experiment with different tools and materials to create texture. • Artists can work in more than one medium. • Artist make decisions about how their work will be displayed. • Artists choose what to include in a composition, considering both what looks good together and any message they want to communicate. • Designers collect visual ideas from a wide range of sources, sometimes collecting these as a mood board. • Artists and designers sometimes choose techniques based on the time and money available to them. • Artists use drawing to plan ideas for work in different media.	• Artists can choose their medium to create a particular effect on the viewer. • Artists can combine materials; for example digital imagery with paint or print. • Art can be interactive; the viewer becomes part of it, experiencing the artwork with more than one of the senses. • Artists use techniques like chiaroscuro to create dramatic light and shade when drawing or painting. • Artists can use materials to respond to a feeling or idea in an abstract way. • Artists take risks to try out ideas; this can lead to new techniques being developed. • Artists can make work by collecting and combining ready-made objects to create 'assemblage'. • Artforms are always evolving as materials and techniques change over time.
	So that they can:	**See skills progression here**
	Discuss how artists produced art in the past and understand the influence and impact of their methods and styles on art today, using their own experiences and historical evidence. Consider how to display art work, understanding how artists consider their viewer and the impact on them. Use subject vocabulary confidently to describe and compare creative works. Understand how artists use art to convey messages through the choices they make. Work as a professional designer does, by collating ideas to generate a theme.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work. Discuss how artists create work with the intent to create an impact on the viewer. Consider what choices can be made in their own work to impact their viewer. Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work. Recognise how artists use materials to respond to feelings and memory and choose materials, imagery, shape and form to create personal pieces . Understand how art forms such as photography and sculpture continually develop over time as artists seek to break new boundaries.

Theme	EYFS: Reception	Year 1/2	Year 3	Year 4	Year 5	Year 6
Nature	Painting and mixed media: Paint my world Seasonal crafts: Autumn wreaths, Suncatchers	Painting and mixed media: Life in colour	Drawing: Growing artists Painting and mixed media: Prehistoric painting Craft and design: Fabric of nature		Craft and design: Architecture	
Celebration	Seasonal crafts: Salt dough decorations, Egg threading				Sculpture and 3D: Making memories	
Sustainability		Craft and design: Woven wonders	Sculpture and 3D: Mega materials			
Identity	Drawing: Marvellous marks	Sculpture and 3D: Paper play Painting and mixed media: Life in colour	Sculpture and 3D: Mega materials		Drawing: I need space Painting and mixed media: Portraits Drawing: Make my voice heard Painting and mixed media: Artist study Sculpture and 3D: Making memories	
Stories		Drawing: Tell a story	Painting and mixed media: Prehistoric painting Craft and design: Ancient Egyptian scrolls Sculpture and 3D: Mega materials		Sculpture and 3D: Interactive installation Sculpture and 3D: Making memories	
Right and wrong			Sculpture and 3D: Mega materials		Drawing: Make my voice heard	
Symbols		Craft and design: Map it out	Craft and design: Ancient Egyptian scrolls		Drawing: I need space Drawing: Make my voice heard	

	EYFS: Reception	Year 1/2
What is art?	**Pupils know:**	
	Art is: Looking, listening, thinking, collaborating, collecting, arranging, choosing, shaping, reacting, changing, joining, cutting, drawing, painting, exploring…	• Art is made in different ways. • Art is made by all different kinds of people. • An artist is someone who creates. • Craft is making something creative and useful.
Why do people make art?		• People use art to tell stories. • People make art about things that are important to them. • People make art to share their feelings. • People make art to explore an idea in different ways. • People make art for fun. • People make art to decorate a space. • People make art to help others understand something.
How do people talk about art?	**So that they can:**	**See skills progression here**
	Talk about their artwork, stating what they feel they did well. Say if they like an artwork or not and begin to form opinions by explaining why.	Describe and compare features of their own and others' artwork. Evaluate art with an understanding of how art can be varied and made in different ways and by different people. Explain their ideas and opinions about their own and others' artwork, beginning to recognise the stories and messages within in and showing an understanding of why they may have made it. Begin to talk about how they could improve their own work. Talk about how art is made.

	Year 3/4	Year 5/6
	Pupils know:	
What is art?	• Artists make art in more than one way. • There are no rules about what art must be. • Art can be purely decorative or it can have a purpose. • Artists make choices about what, how and where they create art. • Artworks can fit more than one genre.	• Sometimes people disagree about whether something can be called 'art'. • Art doesn't always last for a long time; it can be temporary. • Art doesn't have to a literal representation of something, it can sometimes be imagined and abstract. • Art can represent abstract concepts, like memories and experiences. • Art can be a digital art form, like photography.
Why do people make art?	• People use art to tell stories and communicate. • People can make art to express their views or beliefs. • People make art for fun, and to make the world a nicer place to be. • People use art to help explain or teach things. • People make art to explore big ideas, like death or nature. • Art can be created to make money; being an artist is a job for some people. • Art, craft and design affects the lives of people who see or use something that has been created.	• People make art to express emotion. • People make art to encourage others to question their ideas or beliefs. • People make art to portray ideas about identity. • People make art to fit in with popular ideas or fashions. • Sometimes people make art to express their views and opinions, which can be political or topical. • Sometime people make art to create reactions. • People use art as a means to reflect on their unique characteristics.

	Year 3/4	Year 5/6
How do people talk about art?	**Pupils know:**	
	• People can have their own opinions about art, and sometimes disagree. • One artwork can have several meanings. • Art is influenced by the time and place it was made, and this affects how people interpret it. • Artists may hide messages or meaning in their work. • Artists evaluate what they make and talking about art is one way to do this.	• People can explore and discuss art in different ways, for example, by visiting galleries, by discussing it, by writing about it, by using it as inspiration for their own work or by sharing ideas online. • Some artists become well-known or famous and people tend to talk more about their work because it is familiar. • Talking about plans for artwork, or evaluating finished work, can help improve what artists create. • Comparing artworks can help people understand them better. • Art can change through new and emerging technologies that challenge people to discuss and appreciate art in a new way. • People can have varying ideas about the value of art. • Art can be analysed and interpreted in lots of ways and can be different for everyone. • Everyone has a unique way of experiencing art.
	So that they can:	**See skills progression here**
	Confidently explain their ideas and opinions about their own and others' artwork, with an understanding of the breadth of what art can be and that there are many ways to make art. Discuss and begin to interpret meaning and purpose of artwork, understanding how artists can use art to communicate. Begin to carry out a problem-solving process and make changes to improve their work. Use more complex vocabulary when discussing their own and others' art. Discuss art considering how it can affect the lives of the viewers or users of the piece. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Consider how effectively pieces of art express emotion and encourage the viewer to question their own ideas. Explain how art can be created to cause reaction and impact and be able to consider why an artist chooses to use art in this way. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work which takes account of context and intention.

	EYFS (Reception)	EYFS Framework Children at the expected level of development will:	Year 1/2	National curriculum Pupils should be taught:
Generating ideas	Talk about their ideas and explore different ways to record them using a range of media.	**ELG: Speaking** • Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.	Explore their own ideas using a range of media. Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	• To use a range of materials creatively to design and make products to use drawing, painting and sculpture to develop and share their ideas, experiences and imagination
Sketch-books	Experiment in an exploratory way.	**ELG: Expressive Arts and design: Creating with materials** • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Use sketchbooks to explore ideas. Experiment in sketchbooks, using drawing to record ideas. Use sketchbooks to help make decisions about what to try out next.	
Making skills (including Formal elements)	Use a range of drawing materials, art application techniques, mixed-media scraps and modelling materials to create child-led art with no set outcome. Cut, thread, join and manipulate materials safely, focussing on process over outcome. Begin to develop observational skills (for example, by using mirrors to include the main features of faces).	**ELG: Expressive Arts and design: Creating with materials** • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. **ELG: Physical development: Fine motor skills:** • Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; • Use a range of small tools, including scissors, paint brushes and cutlery; • Begin to show accuracy and care when drawing.	Develop increasing control when using a wide range of tools to draw, paint and create crafts and sculptures. Explore and analyse a wider variety of ways to join and fix materials in place. Make choices about which materials and techniques to use to create an effect. Use hands and tools with confidence when cutting, shaping and joining paper, card and malleable materials. Develop observational skills to look closely and aim to reflect some of the formal elements of art (colour, pattern, texture, line, shape, form and space) in their work.	• To use a range of materials creatively to design and make products. • To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space

	EYFS (Reception)	EYFS Framework Children at the expected level of development will:	Year 1/2	National curriculum Pupils should be taught:
Knowledge of artists	Enjoy looking at and talking about art. Recognise that artists create varying types of art and use lots of different types of materials. Recognise that artists can be inspired by many things.	**ELG: Speaking** • Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.	Describe similarities and differences between practices in Art and design, eg between painting and sculpture, and link these to their own work. Understand how artists choose materials based on their properties in order to achieve certain effects. Talk about art they have seen using some appropriate subject vocabulary. Create work from a brief, understanding that artists are sometimes commissioned to create art. Create and critique both figurative and abstract art, recognising some of the techniques used. Apply their own understanding of art materials learnt from artist work to begin purposefully choosing materials for a specific effect.	• About the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.
Evaluating and analysing	Talk about their artwork, stating what they feel they did well. Say if they like an artwork or not and begin to form opinions by explaining why.	**ELG: Expressive Arts and design: Creating with materials** • Share their creations, explaining the process they have used.	Describe and compare features of their own and others' artwork. Evaluate art with an understanding of how art can be varied and made in different ways and by different people. Explain their ideas and opinions about their own and others' artwork, beginning to recognise the stories and messages within and showing an understanding of why they may have made it. Begin to talk about how they could improve their own work. Talk about how art is made.	

	Year 3/4	Year 5/6	National curriculum Pupils should be taught:
Generating ideas	Generate ideas from a range of stimuli, using research and evaluation of techniques to develop their ideas and plan more purposefully for an outcome.	Develop ideas more independently from their own research. Explore and record their plans, ideas and evaluations to develop their ideas towards an outcome. Draw upon their experience of creative work and their research to develop their own starting points for creative outcomes.	• To create sketch books to record their observations and use them to review and revisit ideas
Sketch-books	Use sketchbooks purposefully to improve understanding, develop ideas and plan for an outcome.	Using a systematic and independent approach, research, test and develop ideas and plans using sketchbooks.	
Making skills (including Formal elements)	Demonstrate increased skill and control when drawing and painting to depict forms, such as showing an awareness of proportion and being able to create 3D effects. Use growing knowledge of different materials, combining media for effect. Use hands and tools along with increasingly complex techniques to shape and join materials, such as carving and modelling wire. Apply observational skills, showing a greater awareness of composition and demonstrating the beginnings of an individual style. Develop direct observation, for example by using tonal shading and starting to apply an understanding of shape to communicate form and proportion.	Work with a range of media with control in different ways to achieve different effects, including experimenting with the techniques used by other artists. Combine a wider range of media, eg photography and digital art effects. Create expressively in their own personal style and in response to their choice of stimulus, showing the ability to develop artwork independently. Combine materials and techniques appropriately to fit with ideas. Work in a sustained way over several sessions to complete a piece, including working collaboratively on a larger scale and incorporating the formal elements of art.	• To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] • To develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design.

	Year 3/4	Year 5/6	National curriculum Pupils should be taught:
Knowledge of artists	Discuss how artists produced art in the past and understand the influence and impact of their methods and styles on art today, using their own experiences and historical evidence. Understand the limitations of tools and materials and be able to experiment within more than one medium and with tools to create textural effects. Consider how to display art work, understanding how artists consider their viewer and the impact on them. Use subject vocabulary confidently to describe and compare creative works. Understand how artists use art to convey messages through the choices they make. Work as a professional designer does, by collating ideas to generate a theme.	Research and discuss the ideas and approaches of artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work. Discuss how artists create work with the intent to create an impact on the viewer. Consider what choices can be made in their own work to impact their viewer. Describe, interpret and evaluate the work, ideas and processes used by artists across a variety of disciplines, being able to describe how the cultural and historical context may have influenced their creative work. Recognise how artists use materials to respond to feelings and memory and choose materials, imagery, shape and form to create personal pieces . Understand how art forms such as photography and sculpture continually develop over time as artists seek to break new boundaries.	• About great artists, architects and designers in history.
Evaluating and analysing	Confidently explain their ideas and opinions about their own and others' artwork, with an understanding of the breadth of what art can be and that there are many ways to make art. Discuss and begin to interpret meaning and purpose of artwork, understanding how artists can use art to communicate. Begin to carry out a problem-solving process and make changes to improve their work. Use more complex vocabulary when discussing their own and others' art. Discuss art considering how it can affect the lives of the viewers or users of the piece. Evaluate their work more regularly and independently during the planning and making process.	Discuss the processes used by themselves and by other artists, and describe the particular outcome achieved. Consider how effectively pieces of art express emotion and encourage the viewer to question their own ideas Explain how art can be created to cause reaction and impact and be able to consider why an artist chooses to use art in this way. Independently use their knowledge of tools, materials and processes to try alternative solutions and make improvements to their work which takes account of context and intention.	• To develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. • About great artists, architects and designers in history.

		EYFS (Reception)	
		Junk modelling	Boats
Skills	Design	• Making verbal plans and material choices. • Developing a junk model.	• Designing a junk model boat. • Using knowledge from exploration to inform design.
	Make	• Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together.	• Making a boat that floats and is waterproof, considering material choices.
	Evaluate	• Giving a verbal evaluation of their own and others' junk models with adult support. • Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model.	• Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	Technical	• To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model.	• To know that 'waterproof' materials are those which do not absorb water.
	Additional		• To know that some objects float and others sink. • To know the different parts of a boat.

		Year 1/2 (A)	Year 1/2 (B)
		Constructing a windmill	Baby bear's chair
Skills	Design	• Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design.	• Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.
	Make	• Making stable structures from card. • Following instructions to cut and assemble the supporting structure of a windmill. • Making functioning turbines and axles which are assembled into a main supporting structure. • Finding the middle of an object. • Puncturing holes. • Adding weight to structures. • Creating supporting structures. • Cutting evenly and carefully.	• Making a structure according to design criteria. • Creating joints and structures from paper/card and tape. • Building a strong and stiff structure by folding paper.
	Evaluate	• Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements.	• Exploring the features of structures. • Comparing the stability of different shapes. • Testing the strength of own structures. • Identifying the weakest part of a structure. • Evaluating the strength, stiffness and stability of own structure.
Knowledge	Technical	• To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). • To understand that axles are used in structures and mechanisms to make parts turn in a circle. • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has been made and put together. • To know that the sails or blades of a windmill are moved by the wind. • To know that a structure is something built for a reason. • To know that stable structures do not topple. • To know that adding weight to the base of a structure can make it more stable.	• To know that shapes and structures with wide, flat bases or legs are the most stable. • To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts. • To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily.
	Additional	• To know that design criteria is a list of points to ensure the product meets the clients needs and wants. • To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity. • To know that windmill turbines use wind to turn and make the machines inside work. • To know that a windmill is a structure with sails that are moved by the wind. • To know the three main parts of a windmill are the turbine, axle and structure. • To know that windmills are used to generate power and were used for grinding flour.	• To know that natural structures are those found in nature. • To know that man-made structures are those made by people.

		Year 3/4 (A)	Year 3/4 (B)
		Constructing a castle	Pavilions
Skills	Design	• Designing a castle with key features to appeal to a specific person/purpose. • Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. • Designing and/or decorating a castle tower on CAD software.	• Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. • Building frame structures designed to support weight.
	Make	• Constructing a range of 3D geometric shapes using nets. • Creating special features for individual designs. • Making facades from a range of recycled materials.	• Creating a range of different shaped frame structures. • Making a variety of free standing frame structures of different shapes and sizes. • Selecting appropriate materials to build a strong structure and cladding. • Reinforcing corners to strengthen a structure. • Creating a design in accordance with a plan. • Learning to create different textural effects with materials.
	Evaluate	• Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. • Suggesting points for modification of the individual designs.	•Evaluating structures made by the class. • Describing what characteristics of a design and construction made it the most effective. • Considering effective and ineffective designs.
Knowledge	Technical	• To understand that wide and flat based objects are more stable. • To understand the importance of strength and stiffness in structures.	• To understand what a frame structure is. • To know that a 'free-standing' structure is one which can stand on its own.
	Additional	• To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. • To know that a façade is the front of a structure. • To understand that a castle needed to be strong and stable to withstand enemy attack. • To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. • To know that a design specification is a list of success criteria for a product.	• To know that a pavilion is a a decorative building or structure for leisure activities. • To know that cladding can be applied to structures for different effects. • To know that aesthetics are how a product looks. • To know that a product's function means its purpose. • To understand that the target audience means the person or group of people a product is designed for. • To know that architects consider light, shadow and patterns when designing.

		Year 5/6 (B)
		Playgrounds
Skills	Design	• Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.
	Make	• Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures.
	Evaluate	• Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed. • Identifying what makes a successful structure.
Knowledge	Technical	• To know that structures can be strengthened by manipulating materials and shapes.
	Additional	• To understand what a 'footprint plan' is. • To understand that in the real world, design , can impact users in positive and negative ways. • To know that a prototype is a cheap model to test a design idea.

Mechanisms / mechanical systems

Year 1/2 (B)

		Fairground wheel	Making a moving monster
Skills	Design	• Conducting simple surveys or discussions to gather opinions on what others need or like in a design. • Knowing that a survey is used to find out what people like. • Using a simple design brief that outlines the intended use, target user, and key features of the product, to create simple design criteria. • Knowing that a design brief helps to decide what to make. • Knowing that design criteria are the steps for making a product successful. • Creating ideas with design criteria in mind. • Referring to specific parts of existing products when generating ideas. • Knowing that the design criteria help when thinking of ideas. • Using labels to explain parts of a design, label materials, etc. • Using labels to explain parts of a design, label materials, etc. • Knowing that drawings can help explain how something works. • Knowing that a label explains part of a drawing.	• Creating a class design criteria for a moving monster. • Designing a moving monster for a specific audience in accordance with a design criteria.
	Make	• Choosing materials, ingredients or components from a wider range of materials, ingredients or components. • Explaining their choices based on the properties of materials and components. • Knowing some properties of materials like hard, soft, flexible, waterproof, strong etc. • Following and recalling simple safety instructions. • Knowing that some tools are sharp like scissors and knives. • Choosing known geometric shapes when making. • Beginning to shape objects to improve how they work. • Knowing the names of some geometric shapes: triangle, pyramid, square, cube, circle, sphere. • Considering balance in their finishing, like evenly spaced decoration.	• Making linkages using card for levers and split pins for pivots. • Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. • Cutting and assembling components neatly.
	Evaluate	• Discussing a range of existing products and saying what they like and dislike about them. • Evaluating existing products against design criteria. • Evaluating their ideas and creations against simple design criteria. • Knowing that design criteria help to decide if their product is a success. • Suggesting improvements to their peers' designs and products. • Knowing that improve means to make something better. • Knowing that their suggestions can improve someone else's work.	• Evaluating own designs against design criteria. • Using peer feedback to modify a final design.
Knowledge	Technical	• To know everyday objects have mechanisms. • To know many things that move have parts inside to help them work. • To know mechanisms usually limit unwanted movement. • To know everyday objects utilise wheels and axles. • To know wheels must be able to turn to work effectively. • To know axles allow wheels to turn without falling off.	• To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. • To know that there is always an input and output in a mechanism. • To know that an input is the energy that is used to start something working. • To know that an output is the movement that happens as a result of the input. • To know that a lever is something that turns on a pivot. • To know that a linkage mechanism is made up of a series of levers.
	Additional	• To know the features of a fairground wheel include the wheel, frame, pods, a base an axle and an axle holder.	• To know some real-life objects that contain mechanisms.

Mechanisms / mechanical systems

		Year 3/4 (B)	Year 5/6 (A)
		Making a slingshot car	Making a pop up book
Skills	Design	• Designing a shape that reduces air resistance. • Drawing a net to create a structure from. • Choosing shapes that increase or decrease speed as a result of air resistance. • Personalising a design.	• Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book.
	Make	• Measuring, marking, cutting and assembling with increasing accuracy. • Making a model based on a chosen design.	• Following a design brief to make a pop up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.
	Evaluate	• Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance.	• Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement.
Knowledge	Technical	• To understand that all moving things have kinetic energy. • To understand that kinetic energy is the energy that something (object/person) has by being in motion. • To know that air resistance is the level of drag on an object as it is forced through the air. • To understand that the shape of a moving object will affect how it moves due to air resistance.	• To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots and folds to create paper-based mechanisms.
	Additional	• To understand that products change and evolve over time. • To know that aesthetics means how an object or product looks in design and technology. • To know that a template is a stencil you can use to help you draw the same shape accurately. • To know that a birds-eye view means a view from a high angle (as if a bird in flight). • To know that graphics are images which are designed to explain or advertise something. •To know that it is important to assess and evaluate design ideas and models against a list of design criteria.	• To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.

Mechanisms / mechanical systems

Year 5/6 (A)

***New* Gears and pulleys**

Skills	Design	• Noticing wider-reaching problems or needs in the community. • Identifying a wide range of needs and potential barriers through market research. • Writing more complex problem statements that consider multiple factors and constraints. • Creating more complex design criteria that require considering detailed user needs, environmental impact, materials and cost. • Coming up with a broader range of ideas and deeper innovation, requiring pupils to think critically about their ideas' practicality and originality. • Beginning to use more complex annotated sketches, such as cross-sectional and exploded diagrams and pattern pieces in design. • Using a series of prototypes to refine and improve their designs.
	Make	• Consistently apply safety instructions. • Select appropriate scissors to handle delicate cutting tasks and challenging materials. • Cutting patterns and drawings accurately. • In supervised groups, using hot glue guns safely. • Recognising that hot glue is useful for joining materials that need a strong bond that sets quickly. • Choosing PVA glue over hot glue for its safety when joining materials in less intensive projects.
	Evaluate	• Reflecting on the usability, aesthetics, innovation and sustainability of products and discussing how design choices impact these aspects. • Assessing their designs against a more complex set of design criteria that includes functionality, aesthetics, user experience, sustainability and cost. • Considering alternative materials, tools or techniques that could enhance the product. • Providing feedback that is helpful, specific, and encouraging. • Incorporating feedback from peers or users improve their product further, explaining the changes they made and the impact they had.
Knowledge	Technical	• That mechanical systems that use gears in everyday objects (eg bicycle, clock). • That gears and pulleys allow us to transfer movement and force from one part of a mechanical system to another. • That gears allow us to increase the output of a mechanism.
	Additional	• That market research is a way of collecting information about problems or needs. • That constraints are things that might stop our ideas being successful. • That original and innovative ideas are different from what has been made before. • That annotations are detailed labels and comments on diagrams. • That risks are things that might happen. • That hot glue creates a strong bond quickly. • That is often better to choose safer equipment. • That sustainability means thinking about the materials that were used to make a product and how the product was made. • That their final product can still be improved by different materials or techniques. • That evaluating their designs in detail will help them understand its successful and less successful parts. • That feedback should be positive, helpful and specific. • That explaining how they used feedback to improve their design can help them create better products in the future.

Electrical systems (KS2 only)

		Year 3/4 (B)	Year 5/6 (A)
		Torches	Doodlers
Skills	Design	• Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.	• Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. • Developing design criteria based on findings from investigating existing products. • Developing design criteria that clarifies the target user.
	Make	• Making a torch with a working electrical circuit and switch. • Using appropriate equipment to cut and attach materials. • Assembling a torch according to the design and success criteria.	• Altering a product's form and function by tinkering with its configuration. • Making a functional series circuit, incorporating a motor. • Constructing a product with consideration for the design criteria. • Breaking down the construction process into steps so that others can make the product.
	Evaluate	• Evaluating electrical products. • Testing and evaluating the success of a final product.	• Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. • Determining which parts of a product affect its function and which parts affect its form. • Analysing whether changes in configuration positively or negatively affect an existing product. • Peer evaluating a set of instructions to build a product.
Knowledge	Technical	• To understand that electrical conductors are materials which electricity can pass through. • To understand that electrical insulators are materials which electricity cannot pass through. • To know that a battery contains stored electricity that can be used to power products. • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit.	• To know that series circuits only have one direction for the electricity to flow. • To know when there is a break in a series circuit, all components turn off. • To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. • To know a motorised product is one which uses a motor to function.
	Additional	• To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. • To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	• To know that product analysis is critiquing the strengths and weaknesses of a product. • To know that 'configuration' means how the parts of a product are arranged.

		Year 1/2 (A)	Year 3/4 (A)
		Smoothies	Eating seasonally
Skills	Design	• Designing smoothie carton packaging by-hand.	• Designing a recipe for a savoury tart.
	Make	• Chopping fruit and vegetables safely to make a smoothie. • Juicing fruits safely to make a smoothie.	• Following the instructions within a recipe. • Tasting seasonal ingredients. • Selecting seasonal ingredients. • Peeling ingredients safely. • Cutting safely with a vegetable knife.
	Evaluate	• Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Comparing their own smoothie with someone else's.	• Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.
Knowledge		• To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).	• To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.. • To know that eating seasonal foods can have a positive impact on the environment. • To know that similar coloured fruits and vegetables often have similar nutritional benefits. • To know that the appearance of food is as important as taste.

		Year 5/6 (A)
		Developing a recipe
Skills	Design	• Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Designing appealing packaging to reflect a recipe. • Researching existing recipes to inform ingredient choices.
	Make	• Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe.
	Evaluate	• Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.
Knowledge		• To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed. • To know that recipes can be adapted to suit nutritional needs and dietary requirements. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects. • To know that coloured chopping boards can prevent cross-contamination. • To know that nutritional information is found on food packaging. • To know that food packaging serves many purposes.

		EYFS: Reception	Year 1/2 (A)	Year 5/6 (B)
		Bookmarks	Puppets	Waistcoats
Skills	Design	• Discussing what a good design needs. • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials.	• Using a template to create a design for a puppet.	• Designing a waistcoat in accordance to a specification linked to set of design criteria. • Annotating designs, to explain their decisions.
	Make	• Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading.	• Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing the steps taken during construction.	• Using a template when cutting fabric to ensure they achieve the correct shape. • Using pins effectively to secure a template to fabric without creases or bulges. • Marking and cutting fabric accurately, in accordance with their design. • Sewing a strong running stitch, making small, neat stitches and following the edge. • Tying strong knots. • Decorating a waistcoat, attaching features (such as appliqué) using thread. • Finishing the waistcoat with a secure fastening (such as buttons). • Learning different decorative stitches. • Sewing accurately with evenly spaced, neat stitches.
	Evaluate	• Reflecting on a finished product and comparing to their design.	• Reflecting on a finished product, explaining likes and dislikes.	• Reflecting on their work continually throughout the design, make and evaluate process.
Knowledge		• To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.	• To know that 'joining technique' means connecting two pieces of material together. • To know that there are various temporary methods of joining fabric by using staples. glue or pins. • To understand that different techniques for joining materials can be used for different purposes. • To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. • To know that drawing a design idea is useful to see how an idea will look.	• To understand that it is important to design clothing with the client/ target customer in mind. • To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric. • To understand the importance of consistently sized stitches.

Digital world (KS2 only)

		Year 3/4 (A)	Year 5/6 (B)
		Wearable technology	Navigating the world
Skills	Design	• Problem solving by suggesting which features on a micro:bit might be useful and justifying my ideas. • Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge. • Developing design ideas through annotated sketches to create a product concept. • Developing design criteria to respond to a design brief.	• Writing a design brief from information submitted by a client • Developing design criteria to fulfil the client's request • Considering and suggesting additional functions for my navigation tool • Developing a product idea through annotated sketches • Placing and manoeuvring 3D objects, using CAD • Changing the properties of, or combine one or more 3D objects, using CAD
	Make	• Following a list of design requirements. • Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.	• Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo) • Explaining material choices and why they were chosen as part of a product concept • Programming an N,E, S,W cardinal compass
	Evaluate	• Analysing and evaluating wearable technology. • Using feedback from peers to improve design.	• Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool • Developing an awareness of sustainable design • Identifying key industries that utilise 3D CAD modelling and explain why • Describing how the product concept fits the client's request and how it will benefit the customers • Explaining the key functions in my program, including any additions • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch • Demonstrating a functional program as part of a product concept
Knowledge	Technical	• To understand that, in programming, a 'loop' is code that repeats something again and again until stopped. • To know that a micro:bit is a pocket-sized, codeable computer. • To know that a simulator is able to replicate the functions of an existing piece of technology.	• To know that accelerometers can detect movement • To understand that sensors can be useful in products as they mean the product can function without human input
	Additional	•To know what the 'Digital Revolution' is and features of some of the products that have evolved as a result. • To understand what is meant by 'point of sale display.' • To know that CAD stands for 'Computer-aided design'. • To know what a focus group is by taking part in one.	• To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request • To know that 'multifunctional' means an object or product has more than one function • To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing

Version history

This page shows recent updates to this document.

Date	Update
21.03.23	Cooking and nutrition removed as a strand. It is still covered within the scheme as a key area.
28.08.23	Changed Year 3/4 (A) digital world unit to be Wearable technology (p. 37).
28.10.23	Updated Cooking and nutrition units to reflect refreshed units on the website.
25.04.24	Removed use of the word 'combined' on the document and added a statement to explain that customers need to subscribe to **both** Art and design and Design *and* Technology subjects to have access to all the units referenced in this document.
21.08.24	Updated to reflect refreshed units published on the website.